

JUL 11 2000  
PATENT & TRADEMARK OFFICE**COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled MOLECULAR SCALE ELECTRONIC DEVICES, the specification of which:

- ☐ is attached hereto.  
☒ was filed on April 18, 2000 as Application Serial No. 09/551,716 and was amended on \_\_\_\_\_  
☐ was described and claimed in PCT International Application No. \_\_\_\_\_ filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

<u>U.S. Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
60/154,716	09/20/99	Pending
60/157,149	09/30/99	Pending

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>U.S. Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
09/527,885	03/20/00	Pending

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Samuel Borodach, Reg. No. 38,388  
 Stephan J. Filipek, Reg. No. 33,384  
 William J. Hone, Reg. No. 26,739  
 Greg O'Bradovich, Reg. No. 42,945  
 John B. Pegram, Reg. No. 25,198  
 Gary A. Walpert, Reg. No. 26,098

Richard P. Ferrara, Reg. No. 30,632  
 George E. Heibel, Reg. No. 42,648  
 Stuart Macphail, Reg. No. 44,217  
 Andrew N. Parfomak, Reg. No. 32,431  
 Frederick H. Rabin, Reg. No. 24,488  
 Eric L. Pahl, Reg. No. 32,590

Address all telephone calls to Eric L. Pahl at telephone number (617) 542-5070.



# Combined Declaration and Power of Attorney

Page 2 of 3 Pages

Address all correspondence to Eric L. Prah: \_\_\_\_\_

FISH & RICHARDSON P.C.  
225 Franklin Street  
Boston, MA 02110-2804

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor MARK A. REED

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: 129 Guinea Road  
Monroe,  
Connecticut 06468

Citizenship: U.S.A.

Post Office Address: 129 Guinea Road  
Monroe,  
Connecticut 06468

Full Name of Inventor JAMES M. TOUR

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: 4625 Spruce St.  
Bellaire, TX 77401

Citizenship: U.S.A.

Post Office Address: 4625 Spruce St.  
Bellaire, TX 77401

Full Name of Inventor JIA CHEN

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: 188 Linden Street  
New Haven,  
Conneticut 06511

Citizenship: China

Post Office Address: 188 Linden Street  
New Haven,  
Conneticut 06511

**Combined Declaration and Power of Attorney**

Page 2 of 3 Pages

Address all correspondence to Eric L. Prah:

FISH & RICHARDSON P.C.  
225 Franklin Street  
Boston, MA 02110-2804

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: MARK A. REED

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: 129 Guinea Road  
Monroe,  
Connecticut 06468

Citizenship: U.S.A.

Post Office Address: 129 Guinea Road  
Monroe,  
Connecticut 06468

Full Name of Inventor: JAMES M. TOUR

Inventor's Signature: \_\_\_\_\_

Date: 1/28/00

Residence Address: 4625 Spruce St.  
Bellaire, TX 77401

Citizenship: U.S.A.

Post Office Address: 4625 Spruce St.  
Bellaire, TX 77401

Full Name of Inventor: JIA CHEN

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: 188 Linden Street  
New Haven,  
Connecticut 06511

Citizenship: China

Post Office Address: 188 Linden Street  
New Haven,  
Connecticut 06511

**Combined Declaration and Power of Attorney**

Page 2 of 3 Pages

Address all correspondence to Eric L. Prah:

FISH & RICHARDSON P.C.  
225 Franklin Street  
Boston, MA 02110-2804

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.


Full Name of Inventor: MARK A. REED

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence Address: 129 Guinea Road  
Monroe,  
Connecticut 06468  
Citizenship: U.S.A.  
Post Office Address: 129 Guinea Road  
Monroe,  
Connecticut 06468

Full Name of Inventor: JAMES M. TOUR

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence Address: 4625 Spruce St.  
Bellaire, TX 77401  
Citizenship: U.S.A.  
Post Office Address: 4625 Spruce St.  
Bellaire, TX 77401


Full Name of Inventor: JIA CHEN

Inventor's Signature:  \_\_\_\_\_ Date: 5/1/00  
Residence Address: 188 Linden Street  
New Haven,  
Connecticut 06511  
Citizenship: China  
Post Office Address: 188 Linden Street  
New Haven,  
Connecticut 06511

**Combined Declaration and Power of Attorney**

Page 3 of 3 Pages

Full Name of Inventor: ADAM M. RAWLETT

Inventor's Signature: 


Date: 4/8/00

Residence Address: 2181 W. Redwood Dr.  
Chandler, Arizona 85248

Citizenship: U.S.A.

Post Office Address: 2181 W. Redwood Dr.  
Chandler, Arizona 85248

Full Name of Inventor: DAVID W. PRICE

Inventor's Signature: 

Date: 7/1/00

Residence Address: 7135 Curlew Drive  
Cypress, Texas 77433

Citizenship: U.S.A.

Post Office Address: 7135 Curlew Drive  
Cypress, Texas 77433

30015387.doc

Applicant or Patentee: Reed et al.  
 Serial or Patent No.: 09/551,716  
 Filed or Issued: April 18, 2000  
 For: MOLECULAR SCALE ELECTRONIC DEVICES

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS**  
**(37 CFR 1.9(f) and 1.27(d)) — NONPROFIT ORGANIZATION**

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name of Organization: Yale University  
 Address of Organization: Yale Station, New Haven, Connecticut 06520

Type of Organization:

- ☒ University or Other Institution of Higher Education  
☐ Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3))  
☐ Nonprofit Scientific or Educational Under Statute of State of the United States of America  
 (Name of State: \_\_\_\_\_) (Citation of Statute: \_\_\_\_\_)  
☐ Would qualify as tax exempt under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3)) if located in the United States of America  
☐ Would qualify as nonprofit scientific or educational under Statute of State of the United States of America if located in the United States of America  
 (Name of State: \_\_\_\_\_) (Citation of Statute: \_\_\_\_\_)

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code with regard to the invention entitled MOLECULAR SCALE ELECTRONIC DEVICES by inventor(s) MARK A. REED, JAMES M. TOUR, JIA CHEN, ADAM M. RAWLETT AND DAVID W. PRICE described in:

- ☐ the specification filed herewith.  
☒ application serial no. 09/551,716, filed April 18, 2000.  
☐ patent no. \_\_\_\_\_, issued \_\_\_\_\_.

I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(c) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention availing to their status as small entities. (37 CFR 1.27)

Full Name: \_\_\_\_\_

Address: \_\_\_\_\_

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status when any new rule 53 application is filed or prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name:	<u>Kara McCarthy Casey</u>
Title:	<u>Manager, Intellectual Property Affairs</u>
Address:	<u>Yale Office of Cooperative Research, 155 Whitney Avenue, Suite 210, P.O. Box 208336, New Haven, CT 06520-8336</u>

Signature: Kara McCarthy Casey

Date: 7/4/00